

Fig. 1

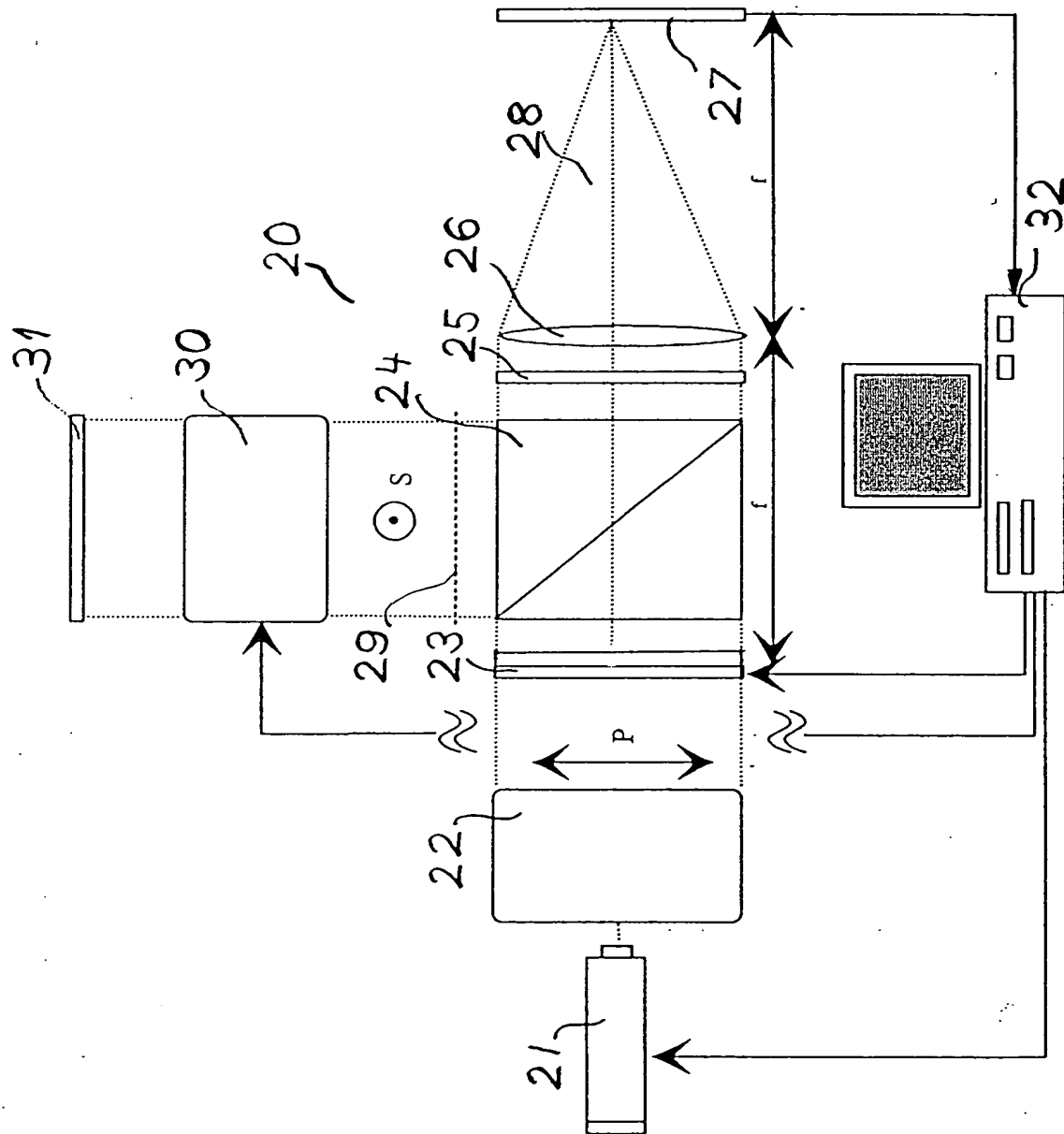


Fig. 2

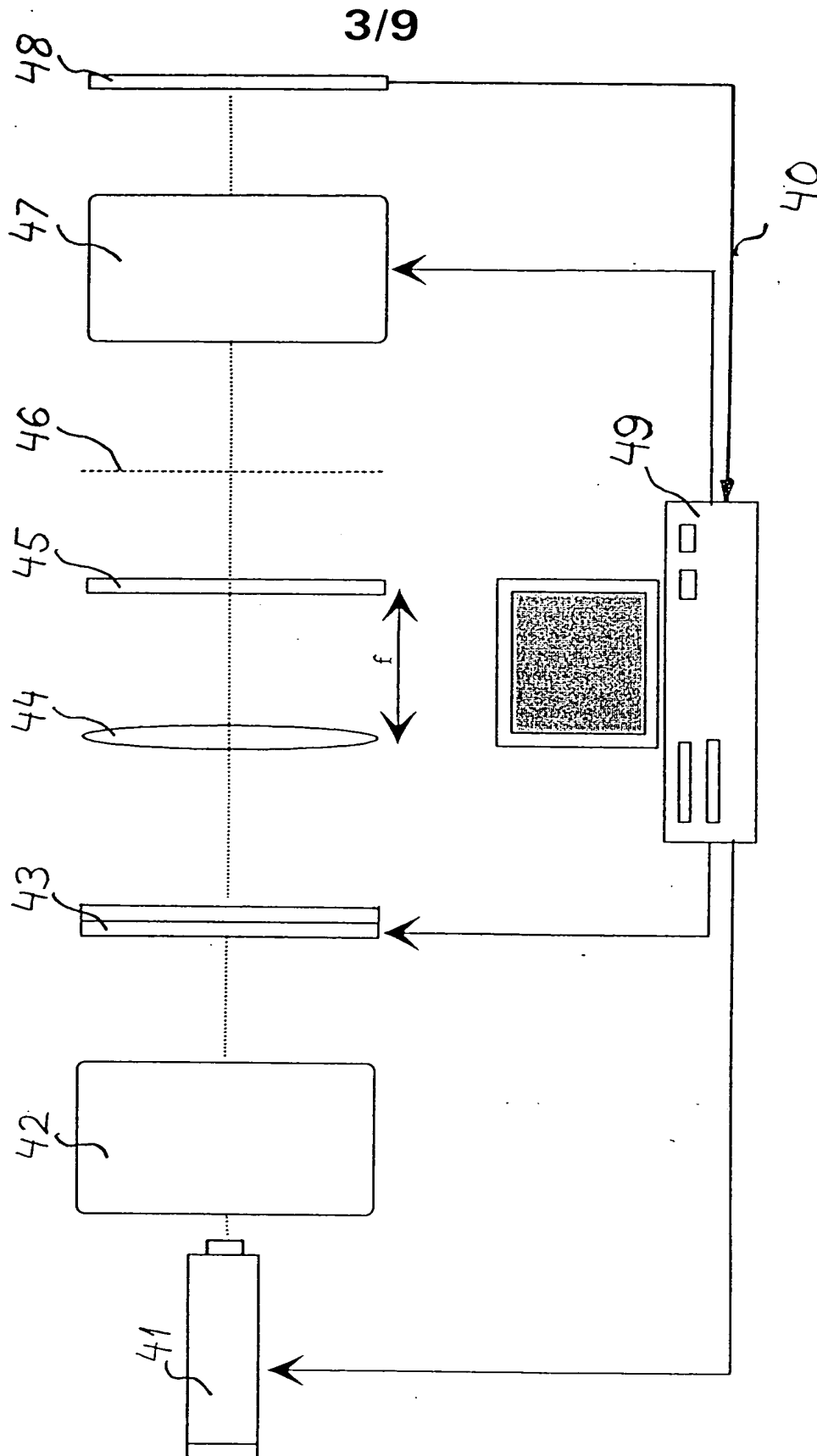
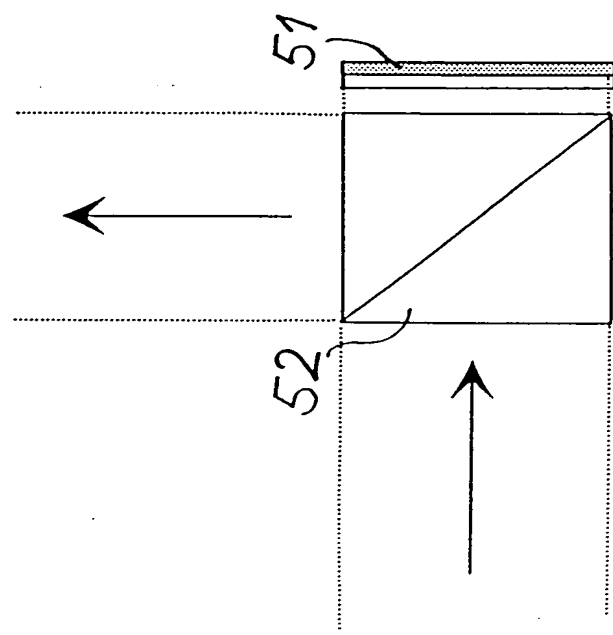
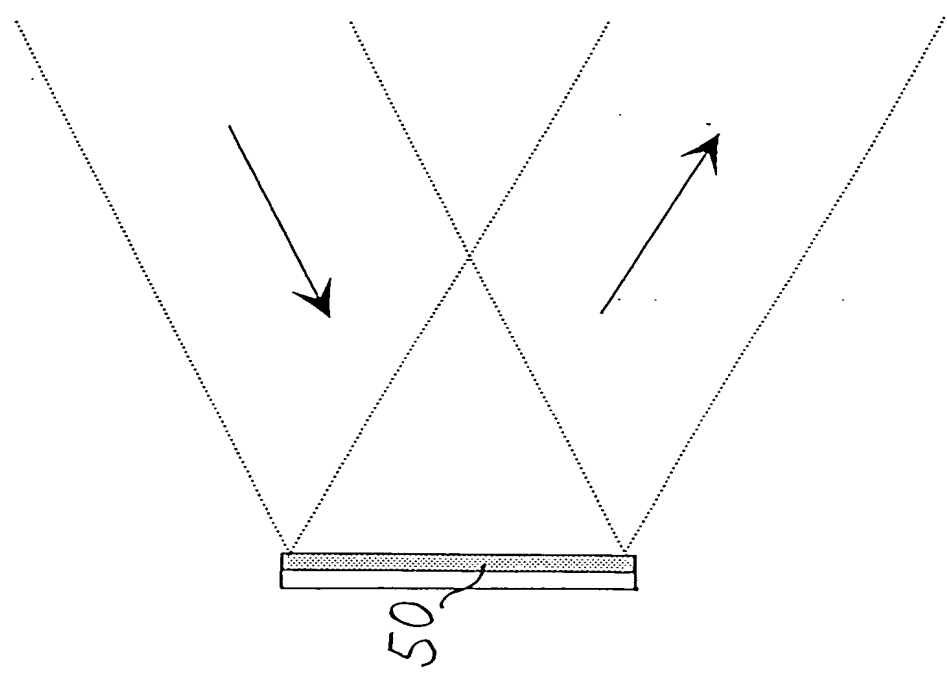


Fig. 3

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(B)



(A)

Fig. 4

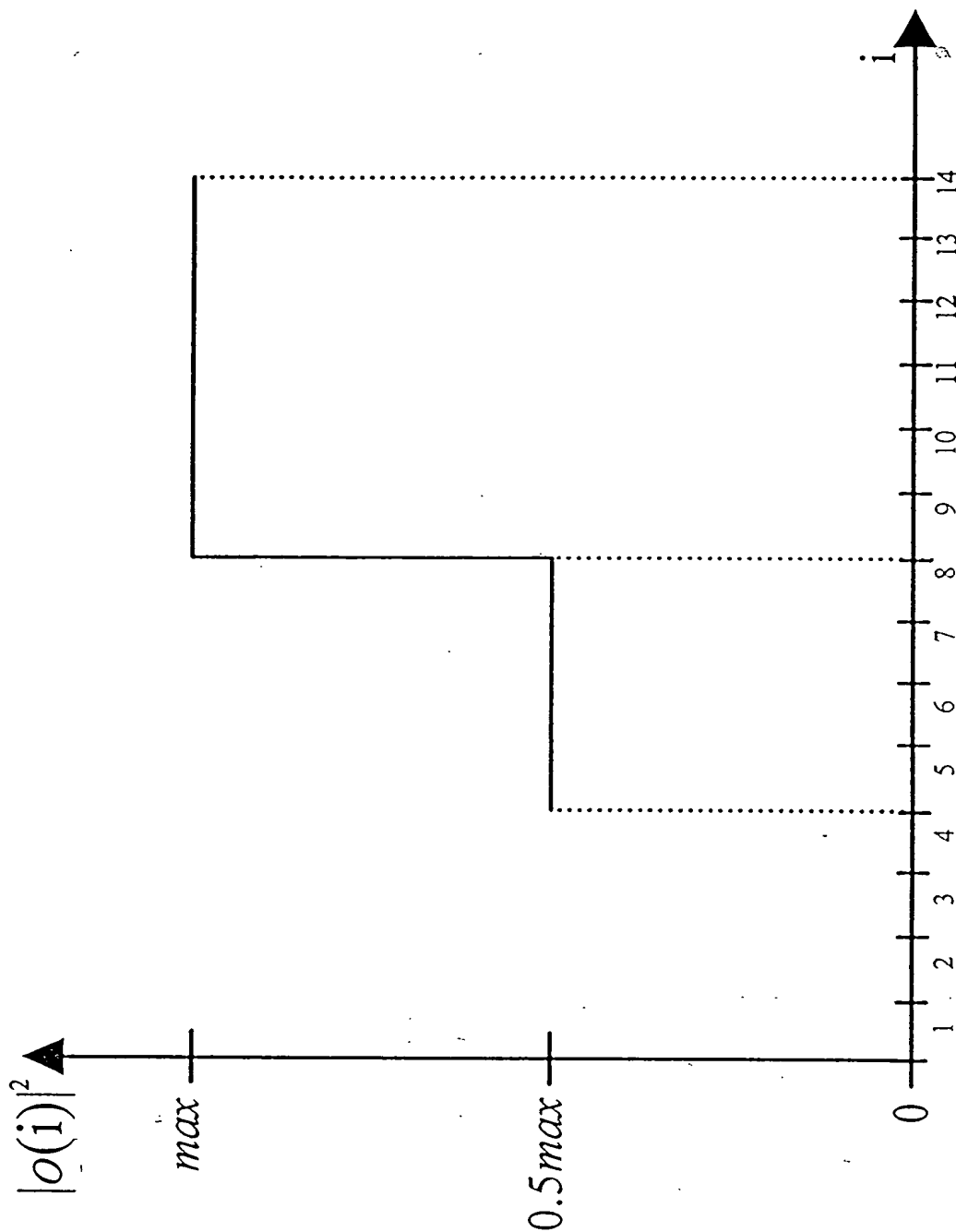


Fig. 5

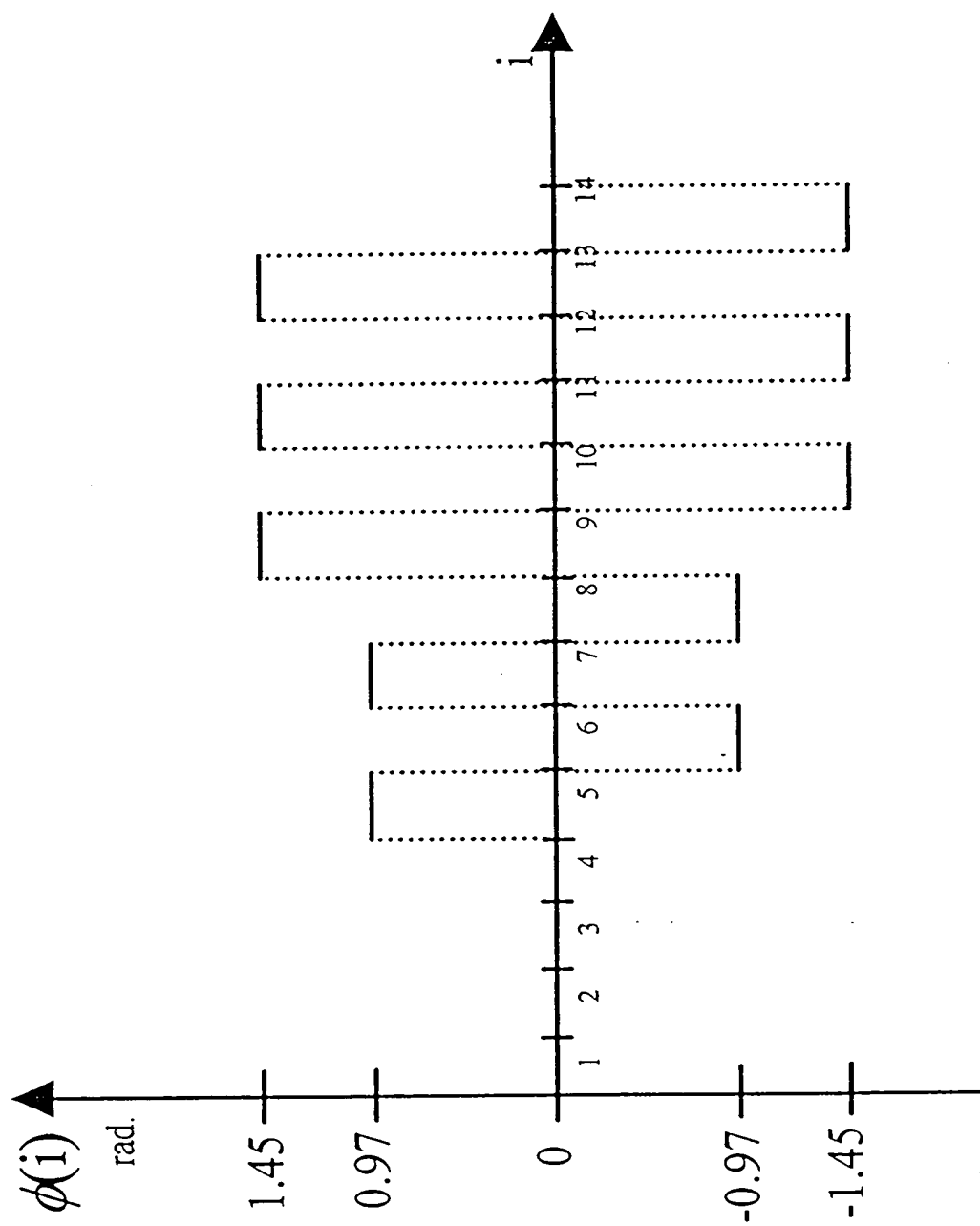
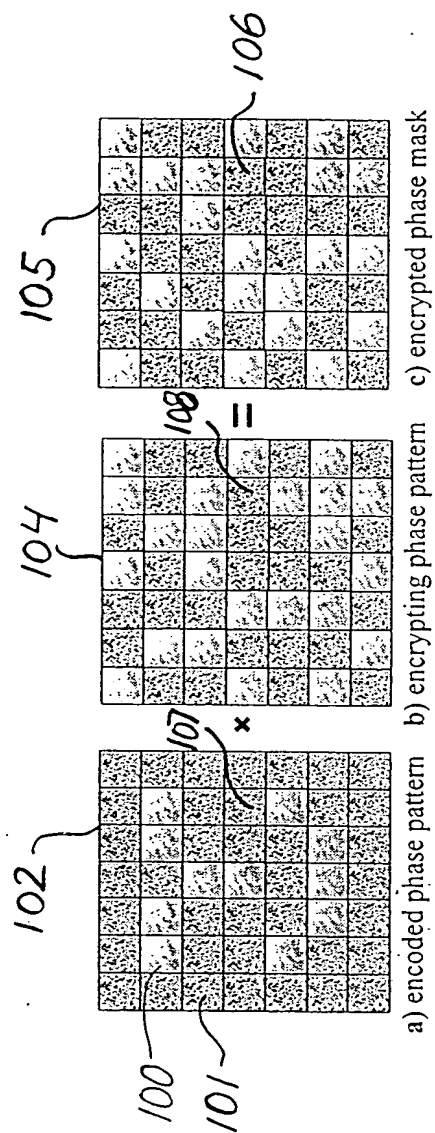
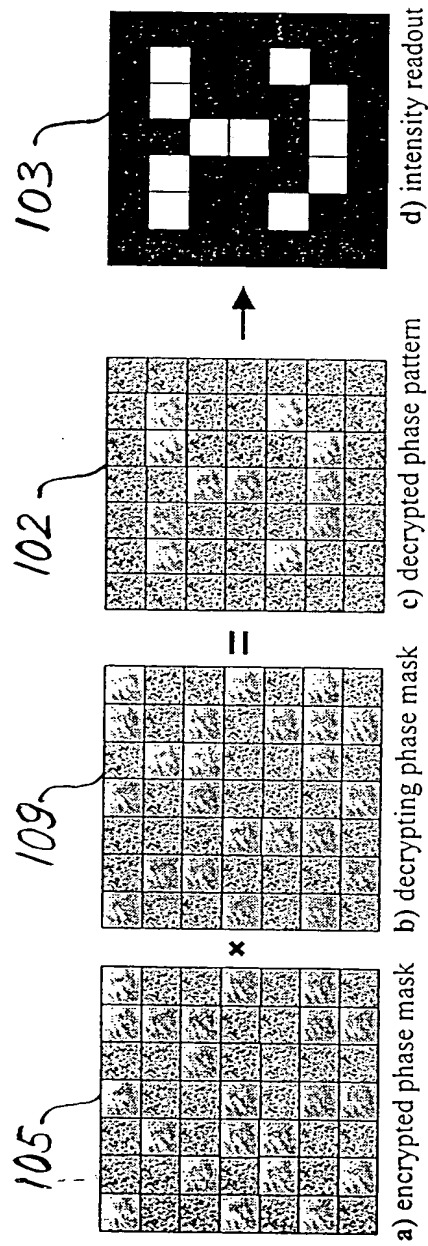


Fig. 6



Encryption Process for a binary phase image. The phase value of the pixels is either 0 (shown as light grey areas) or π (dark grey). The resulting phase mask (c) is a uniform random distribution of binary phase values and is generated by a multiplication of patterns (a) and (b) within the computer.

Fig. 7



The decryption process. This process is the reverse of that shown in Fig. 1, but is carried out optically, the high contrast image (d) is obtained using a π phase contrast filter in the decryption optics.

Fig. 8

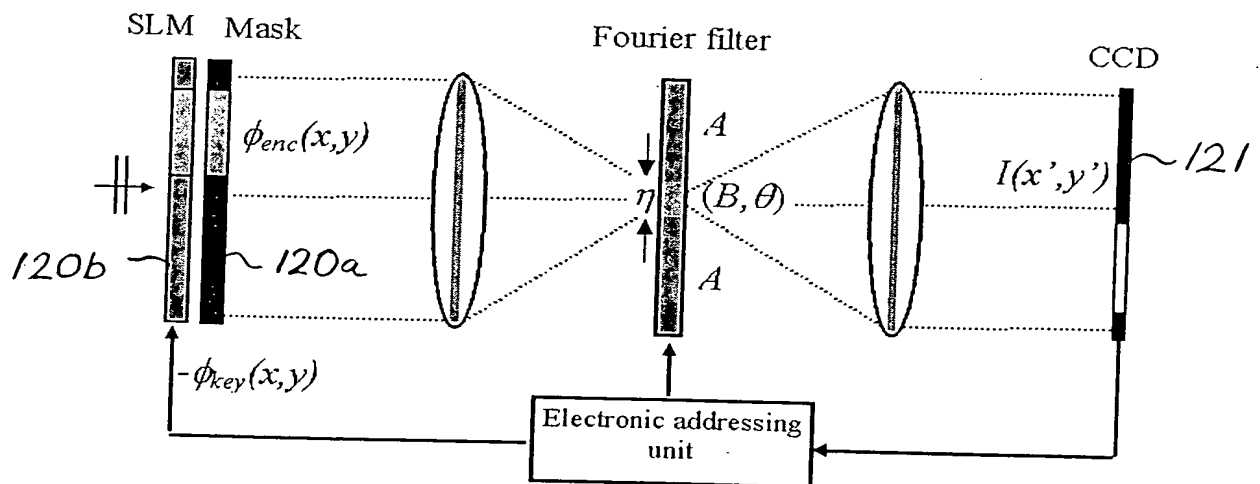


Fig. 9